



# United States Department of the Interior

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IN REPLY REFER TO  
5400 (014)

DATE:  
October 18, 2006

## **DECISION RATIONALE FOR Thin Sheep Forest Health Treatments EA #OR-014-05-02 PROJECT: Thin Sheep Timber Sale**

### **INTRODUCTION**

The effects of the Thin Sheep Timber Sale are analyzed in the Thin Sheep Forest Health Treatments Environmental Assessment (EA) #OR-014-05-02. This Decision Rationale (DR) applies only to the Thin Sheep Timber Sale and follow-up hazardous fuel reduction treatments as proposed in the EA. The timber sale is scheduled to be sold November 29, 2006.

The Klamath Falls Resource Area (KFRA) interdisciplinary team designed the Thin Sheep Forest Health Treatments and analyzed the impacts of implementation of these treatments based on: current resource conditions in the project area, results of monitoring the previous decade of timber harvest activities, and the need to meet objectives and direction of the KFRA Resource Management Plan (RMP). The proposals presented and evaluated in the Thin Sheep Forest Health Treatments EA reflect what the interdisciplinary team determined to be the best balance and integration of resource conditions, resource potentials, competing management objectives, expressed interests of the various publics that commented, and the concerns of surrounding communities.

### **DECISION**

It is my decision to implement the Proposed Action analyzed in the Thin Sheep Forest Health Treatments EA. As part of this action, appropriate Best Management Practices (BMPs) in Appendix D of the Klamath Falls Record of Decision and Resource Area Resource Management Plan (ROD/RMP) and the Project Design Features in Appendix B of the EA will be applied. As a result of the August 1, 2005, U.S. District Court order in Northwest Ecosystem Alliance et al. v. Rey et al., which found portions of the *Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines* (January, 2004) (EIS) to be inadequate, certain modifications to the proposed action were determined necessary. As a result, the number of acres proposed for treatment in some units has been reduced. Table 1 in the "Mitigation" section below shows specific changes by treatment unit.

The approved action will result in the implementation of the Thin Sheep Timber Sale within the analysis area. Specifically, this decision will result in:

### **Commercial Timber Harvest**

- Commercial timber harvest would occur in Sections 17, 21, 29, 31, and 33 of T. 39 S., R. 5 E. and Section 7 of T. 40 S., R. 5 E., W.M.
- Approximately 3.3 million board feet (MMBF) of timber would be harvested.

### **Forest Health Treatments**

- Density Management Thinning (Commercial Timber Harvest) – approximately 590 acres. Figure 1 below illustrates the expected distribution by diameter class of trees designated for harvest (take trees) and retention (leave trees).
- Mixed Density Management and precommercial thinning (plantations) – approximately 200 acres.
- Fuel reduction (Post Harvest) in the Matrix through prescribed fire, hand piling and slash busting – approximately 900\* acres. (This figure includes the same acres treated with Density Management harvest prescription above.)

### **Riparian Reserve Vegetation Treatments with Silvicultural Prescription Applied**

- Density Management Thinning (Commercial Timber Harvest) – approximately 15 acres
- Other riparian restoration/thinning – approximately 50 acres

### **Road Treatments**

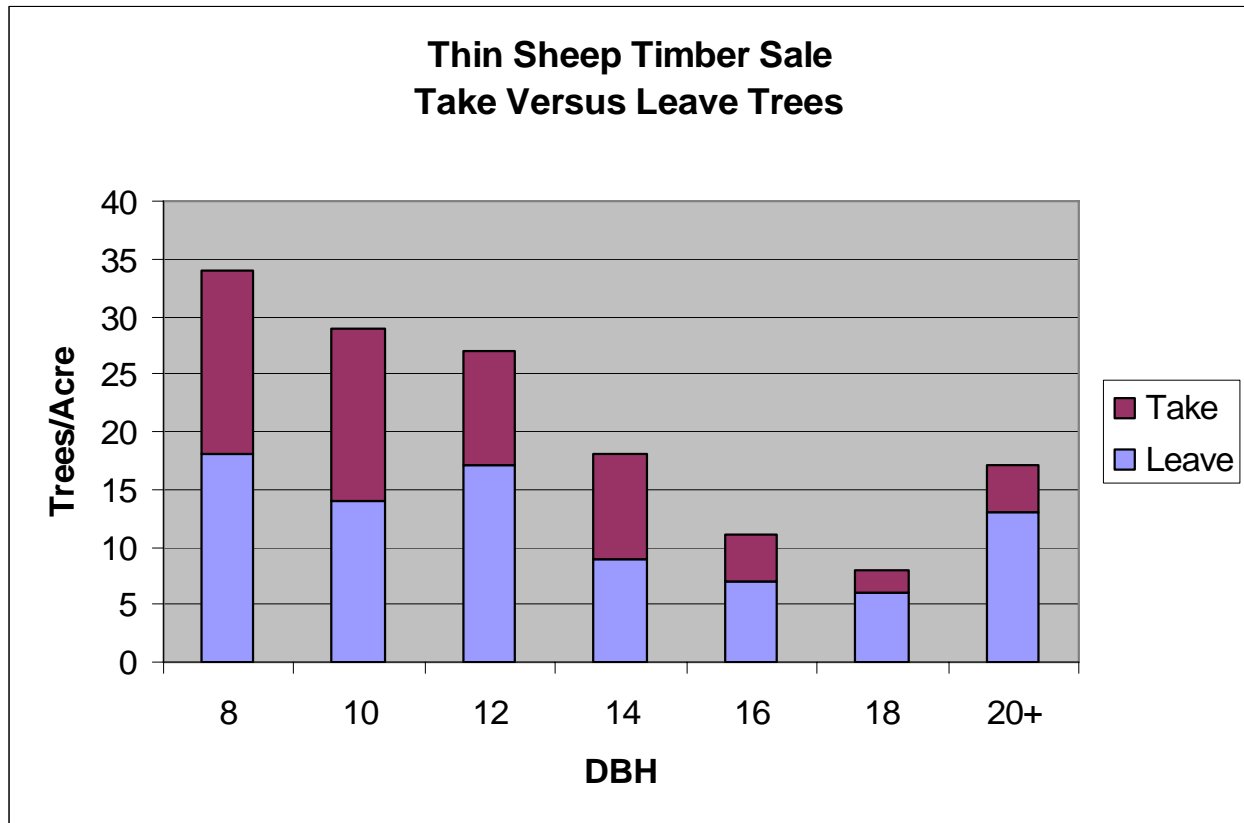
- Road improvement (resurfacing) – approximately 0.1 mile
- Road renovation (grading and brushing/road maintenance) – approximately 8.5 miles
- Road closures (blocking) – approximately 1.2 miles
- Road obliteration – approximately 0.3 miles
- New road construction – approximately 0.1 miles

### **Treatment Unit Boundary Adjustments**

- A 0.25 mile buffer around a Great Gray Owl nest site found to be active in the project area in 2005 was excluded from the timber harvest unit boundary.
- One active and one alternate Northern Goshawk nest documented within a riparian reserve buffer in one unit will be protected with an appropriate buffer and seasonal restriction.
- One Cooper's hawk nest tree will be retained along with a small buffer (approximately one acre) of trees around the nests to protect the structure of the immediate nest stand during any proposed activity.
- A population of mountain lady slipper orchid (a Survey and Manage plant species) was detected within a meadow buffer that is excluded from the proposed treatment unit boundary.

(Refer to Table 1 below.)

**Figure 1: Thin Sheep Timber Sale – Data from tree marking quality control plots and timber cruise showing comparison of proposed take versus leave trees per acre by diameter class\* (\*DBH = diameter breast height).**



### Monitoring

The KFRA ROD/RMP (Appendix K) requires that at least twenty percent of the timber sales, silviculture projects, or other ground disturbing activities be monitored annually. The KFRA has issued an Annual Program Summary (APS) and Monitoring Report on a yearly basis since the signing of the Resource Management Plan in 1995. The Annual Program Summary documents the results of annual timber sale monitoring as well as on-going monitoring of other resources. The 2005 Annual Program Summary and Monitoring Report, Table 19-5 on page 38, lists all the sales that have been sold and those that have been monitored to date.

Monitoring related to timber harvesting has included determining soil effects, stand attribute changes (basal area, trees per acre, species composition, structure, etc.), numbers and spacing of skid trails, coarse woody debris and snag requirement compliance, establishment and adherence to riparian reserve buffers, threatened and endangered species buffers, cultural resources buffers, and seasonal use restrictions. The Thin Sheep Timber Sale will have some or all of these attributes monitored.

### Mitigation

Table 1 below shows modifications in number of acres proposed for treatment in order to mitigate certain resource concerns and to comply with the *2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines*. (Refer also to Figure 2.)

**Table 1: Acre Modifications by Treatment Unit for the Thin Sheep Timber Sale**

<b>Treatment Unit</b>	<b>Acres Analyzed in EA</b>	<b>New Unit Acreage</b>	<b>Rationale for Change</b>
DM* Unit 17-1	38	0	Great gray owl Nest Core Area
DM Unit 17-2	45	39	Meadow Buffer
DM Unit 21-1	22	11	Meadow Buffer
DM Unit 29-1	153	142	Wildlife Clump
DM Unit 31-1	270	261	Wildlife Clump
DM Unit 33-1	32	32	No Change
DM Unit 7-1	105	105	No Change
Totals	665	590	

\*DM = Density Management

### **Resources Not Present**

The following resources are not present within the proposed Thin Sheep Timber Sale Area and thus were not analyzed in the EA: prime and unique farmlands, mining claims, paleontological resources, hazardous materials, roadless areas, wilderness areas, and wilderness study areas.

### **Environmental Consequences**

Implementation of the proposed action for the Thin Sheep Forest Health Treatments EA is consistent with the effects analyzed the KFRA RMP EIS. The PDFs and BMPs from the Thin Sheep Forest Health Treatments EA and the BMPs from the KFRA ROD/RMP, and the mitigation measures will minimize the effects to the affected resources and result in no effects that are greater than those described in the EA and the KFRA RMP EIS.

### **RATIONALE FOR SELECTION OF PROPOSED ACTION**

The decision to implement the Proposed Action meets the purpose and need identified in the EA (page 3) and furthers the intent established in the RMP to harvest timber and protect other resource values.

The No Action Alternative is rejected because it does not meet the resource management objectives for the Matrix identified in the Klamath Falls RMP and the Northwest Forest Plan (NWFP) (*Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl*, 1994). Beneficial economic opportunities from timber harvesting would be foregone and no thinning or fuel reduction benefits would be realized.

Other alternatives considered but rejected (see EA pages 9 and 10) include a Restoration Only Alternative and a Salvage Only Alternative. Both alternatives were rejected because they would not meet one or more parts of the Purpose and Needs section of the EA. The Salvage Only Alternative would not address the need to reduce the density of overstocked forested areas to improve forest health, stand resiliency, and growth. In addition it would contribute only minimally to the maintenance of a stable timber supply as required in the KFRA/RMP. The Restoration Only Alternative, primarily treatment with prescribed fire would accomplish some thinning and fuels reduction. However, the thinning could be poorly controlled and would likely cause significant mortality to smaller diameter (6" to 16" DBH) white fir and ponderosa pines stands. In addition, no trees would be harvested and no timber would be

provided to support local economies as required in the KFRA/RMP. Therefore, the Salvage Only and Restoration Only Alternatives were rejected.

### **CONSULTATION AND COORDINATION**

Section 7 Consultation with the U.S. Fish and Wildlife Service (FWS) was completed for the proposed thinning and regeneration harvest. A biological assessment dated June 28, 2006, addressed the actions proposed in the Thin Sheep Forest Health Treatments EA.

For the Thin Sheep Timber Sale a determination of “May Affect, Not Likely to Adversely Affect” was made by the BLM for the northern spotted owl. A “No Effect” determination was made for all other listed species. The FWS concurred with this determination (concurrence letter July 17, 2006; 1-10-06-I-0145).

### **PUBLIC INVOLVEMENT**

A scoping letter dated February 5, 2004 for the Klamath Falls Resource Area’s portion of the Jenny Creek watershed was sent to the resource area timber sale EA mailing list of approximately 150 people. The letter explained the project proposal and asked the general public for comments. The resource area received comments from four individuals/organizations. Due to litigation involving Northern Spotted Owl Critical Habitat in the northeast portion of the original analysis area, the decision was made to propose and analyze projects outside of this critical habitat. Thus, only the proposed Thin Sheep timber sale project area was analyzed in the EA. A portion of the public comments received during the Jenny Creek scoping were considered applicable to this effort. The issues and concerns raised were considered in formulation of alternatives (Chapter 2), analysis of the alternatives (Chapter 3) and development of mitigation measures. In addition, specific public comments are addressed on pages 4, 5, & 6 of the EA.

Upon completion of the EA, the public was notified on August 15, 2006 through a legal notice published in the Klamath Falls Herald and News and through an EA availability letter mailed to those on the EA mailing list. A joint response was received from two different organizations during the formal thirty (30) day public comment period. The comments received were similar to those already addressed on pages 4, 5, and 6 of the EA. The following are responses to relevant issues raised during the thirty (30) day EA public comment period:

#### **Large Trees and Corresponding Fire Resistance**

Comment: *Protect all fire resistant trees larger than 18” dbh (except white fir <80 years old may be cut up to 24” dbh)... BLM needs to operate under the eastside screens. There is no justification for removal of trees over 20” dbh (with the possible exception of white fir that has encroached in the last 80 years.). Removing large fire-resistant trees such as Ponderosa pine and Douglas-fir will not only degrade habitat, but will also conflict with the fuel reduction objectives. Removal of large, thick-barked, shade producing trees will make the microclimate hotter, dryer, and windier thereby increasing fire hazard instead of reducing it.*

Response: The KFRA ROD/RMP (page E-3) specifies that “...trees in all size classes are eligible for thinning in order to reduce stocking to site capacity.” The KFRA monitors stand structure and forest conditions on an annual basis (see 2005 Annual Program Summary and Monitoring Report pages 88-92) and has demonstrated that wildlife habitat and stand diversity has been maintained in previous projects with similar prescriptions. Wildlife habitat and stand diversity is expected to be retained with this project as well. The KFRA sees no need to limit

harvesting to certain diameters when current prescriptions are meeting the multiple RMP objectives for Matrix lands and the purpose and need of the EA.

One of the objectives of the proposed action is to thin canopy fuels to reduce the potential of a crown fire but maintain sufficient canopy to meet wildlife and other resource objectives. Recent findings have validated that thinning of forested stands can reduce hazardous fuels and fire intensities. The Cone Fire occurred on September 26, 2002 within the Blacks Mountain Experimental Forest on the Lassen National Forest. The fire is unique in that it burned into several mechanically thinned and underburned units. The fire effects changed from predominately a stand replacing crown fire in the unthinned area to a ground fire with lower intensities when it reached the thinned units. More trees survived in the thinned unit than in the unthinned unit (Jablonski, October 2003). The EA (pages 4-5) addresses the need to reduce overstocked stands and reduce wildfire risk. Figure 1, above, shows that the majority of the trees to be removed under the Thin Sheep Timber Sale are in the 8" to 16" size classes and that relatively few trees over 20" inches DBH would be removed. In addition, thinning around larger high resource value trees is prescribed in the harvest prescription to enhance their resiliency and reduce fire risk (see Appendix B, page A-3). Therefore, the long-term maintenance and recruitment of large trees is expected.

### **Snags & Large Coarse Woody Debris**

Comment: *Enhance habitat for prey species by retaining 8-10 large snags per acre, and all large down wood. The EA fails to acknowledge that the snag habitat standards in the applicable resource management plan are scientifically discredited, but the EA still relies on those outdated standards to make the project sound reasonable. The RMP dead wood standards prescribe far too few snags to meet all the critical ecological functions of dead wood.*

Response: As described in the EA (Appendix B, page A-5), a minimum of 2.4 snags per acre would be retained (where available) to meet the RMP defined 60% optimum cavity nesting habitat in the area and to meet snag requirements from the 2001 Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (2001 ROD) for white headed woodpeckers, black backed woodpeckers, pygmy nuthatches and flammulated owls (pages 33-34, 2001 ROD). In addition, because this is a density management harvest where approximately 1/4 to 1/3 of the trees (by basal area) are removed, mostly from the smaller diameter classes, there is expected to be sufficient recruitment trees available to meet future snag and down woody debris requirements, therefore negating the need to retain all large snags. Pre-treatment monitoring information indicates that there are approximately 8.6 snags per acre which includes approximately 3.9 snags per acre greater than 11 inches DBH in the treatment units at this time. In general, existing snags will not be designated for harvest during sale preparation because the wood will have deteriorated beyond use by the time the sale is harvested. The only existing snags that would be designated for removal in the proposed action and during the administration of the contract, would be those that present a hazard to logging operations or public use. These would include snags immediately adjacent to landings and main public roads.

### **Silvicultural Management Prescriptions – Thinning should be done at variable densities.**

Comment: *Attain a high degree of variability by implementing lots of large unthinned “skips” and small, heavy thinned “gaps.”*

Response: The KFRA implements silvicultural prescriptions that result in variable densities. A typical density management unit may contain a patch cut, stands with a residual density of 60 to 100 square feet of basal area per acre, stands with a residual density of 120 to 180 square feet of basal area per acre, and thermal clumps where no harvest is implemented. The Thin Sheep Timber Sale contains no patch cuts. The residual density of the Thin Sheep Timber Sale is expected to vary from a residual basal area of 60 to 180 square feet per acre to untreated thermal clumps. In addition to a variable density prescription, Figure 1 (above) shows that trees in diameter classes ranging from eight to over 20 inches will remain which will result in the desired uneven-aged, multi-structured stand. The 2005 Annual Program Summary and Monitoring Report (page 90) shows a summary of the post treatment stand attributes of a typical density management timber sale that includes canopy closure, basal area, trees per acre, tree sizes, fuel loading, coarse woody debris data, and snag data. The summary shows stand data indicating that the residual stand contains a considerable amount of variation thereby validating that variable density thinning is being implemented. The prescribed treatments are expected to maintain a high degree of variability in densities and age classes and provide for future recruitment of large trees (see the “Large Trees” discussion above).

### **Soils**

Comment: *Try to log over snow or frozen ground.*

Response: Pages 26-27 of the EA address the soil impacts expected from the proposed action. The effects of both ground based logging and follow-up slash busting treatments are discussed and analyzed and have been found to be within those thresholds analyzed in the KFRA RMP/EIS. The KFRA annual soil monitoring results can be found in the Annual Program Summary and Monitoring Report and monitoring to date indicates that effects of similar timber harvests and slashbusting activities are within the RMP standards. Soil disturbance does not necessarily equate to soil compaction. The KFRA limits ground based operations to those periods when the soil moisture is twenty percent (20%) or less at six (6) inches in depth regardless of the time of year (see EA, Appendix B, page A-4). Operations are normally limited to May 15 to November 1 depending upon the soil moisture criteria stated above. To date, the KFRA has had three timber sales logged over snow with outstanding results. Depending upon the location of the timber sale, snow logging is often an optional clause inserted into the timber sale contract and available to the Purchaser. For the Thin Sheep Timber Sale, Sections 31 and 33 would be suitable for snow logging because of their proximity to Highway 66. Snow logging the remaining parcels is not feasible as it would require repeated plowing of miles of unsurfaced roads to access the scattered units (see Figure 2). If however, the Purchaser requested to snow log the remaining units, the BLM would likely grant that request depending upon the Purchaser meeting all the conditions.

### **Hazardous Fuel Reduction Treatment**

Comment: *BLM needs to consider credible opposing viewpoints which hold that time since fire... does not indicate increasing fire hazard but rather decreasing hazard. The implication is that well-shaded fire-suppressed forests may exhibit, on average, lower fire intensity, not higher.*

Response: Regardless of factors that have contributed to current conditions, all BLM-administered lands within the proposed project area have been classified as being in Fire Regime 1, Condition Class III, using the Landscape Standard Method according to the Interagency Fire Regime Condition Class Guidebook. Forested areas within this condition are classified as most vulnerable to losing key ecosystem components due to wildfire. The primary stand characteristics for this classification include a high proportion of closed mid-seral stands and the high vulnerability to stand replacing wildfire due to existing fuel loads and densely stocked trees (EA, page 11).

The description that you specify above “*well-shaded fire-suppressed forests may exhibit, on average, lower fire intensity, not higher*” describes a multi-structured forest where the understory is dominated by generally shade tolerant, least fire resistant species (for example white fir), forming an array of ladder fuels, and sites where natural fire has been suppressed for years. That description matches many of the mixed conifer stands in the Klamath Falls Resource Area. To state that these stands are less vulnerable to stand replacing fires depends upon numerous variables like weather, slope, aspect, and timing of fire event as well as numerous other variables. Although these types of stands do provide diversity in structure, during the late summer months, these stands can be at very high risk to catastrophic, stand replacing fire events because of the dense understory, heavy fuel loads, and present conditions. The KFRA has been successfully treating these types of stands by concurrently thinning the understory 3”-7” submerchantable material with thinning of the commercial sawlogs. Once the thinning is completed, prescribed fire and or slash busting is then used to further breakup the continuity of fuels. The end result and objective in regards to fuels management is a multi-structured stand, a more open canopy, reduced fuels, and a fire condition less vulnerable to a stand replacing event.

The Thin Sheep Timber Sale harvests mostly small trees (8” to 14” DBH) and relatively few of the larger, fire resistant trees (see Figure 1). In the units in Sections 21, 29 and 33, fifty to seventy-five percent (50% to 75%) of the 3”-7” submerchantable material will be thinned concurrently with the sawlogs to reduce the understory ladder fuels. Some submerchantable understory is left intentionally to add diversity to the stand and because the KFRA RMP prescribes uneven-aged management (RMP – Page 22). Upon completion of the treatments, it is anticipated that the average canopy closure will be 50 percent or greater (EA, page 13). In addition to the thinning of the 3”-7” submerchantable material, the proposed treatments include other fuel reduction treatments that when used together will minimize the generation of activity fuels and reduce fire severity and risks. The treatments include:

- All trees harvested will be whole tree yarded (the tops and attached limbs will be removed from the woods and yarded to landings),
- Residual slash accumulations will be lopped and scattered to break up fuel concentrations and arrangements,
- Residual landing slash may be sold for biomass for energy production, sold for chips for hardboard production, or possibly piled for later burning, and
- Slashbusting and or prescribed fire will be used depending upon residual fuel loads.

Suppression efforts are expected to be more effective in the post-treatment stand. The overall effect of the proposed action is expected to modify the present fuel condition class to closely



resemble historic conditions thereby benefiting multiple resources. As a result of all actions proposed including harvesting, the wildfire severity and risk is not expected to increase.

## **Roads**

Comments: *BLM should not be building any new road because the actual road density in this area is 5 miles per square mile, while the target road density is 1.5 miles per square mile. BLM should not use these extra illegal roads, nor should they build any new roads. The road closures involved in this project are welcome, but they are a drop in the bucket.*

Response: The Thin Sheep Forest Health Treatments EA is tiered to the KFRA ROD/RMP which addresses and analyses in detail, road use, construction, specifications and associated impacts (pages 71-73 and Appendix D, D13-D21). In addition, the EA addresses road-related environmental effects to the above resources (pages 7 and 24-28). Page 46 (Table 24.1) of the 2005 Klamath Falls Resource Area Annual Program and Monitoring Report summarizes the road and transportation management progress in the KFRA since 1995 when the RMP was signed. There has been a net decrease in permanent existing roads and open roads in the KFRA since 1995 resulting in beneficial effects to wildlife and hydrological resources. The proposed action calls for construction of 0.1 mile of new permanent road and the closure and/or obliteration of approximately 1.5 miles of existing road. This represents a reduction of nearly 20 percent in open road miles in the treatment area. Due to the fact that these small scattered parcels are surrounded by private lands, BLM has additional constraints to consider when proposing road closure or obliteration.

## **CONCLUSION**

### **Consideration of Public Comments**

I have reviewed the public comments summarized above and have discussed them with the interdisciplinary team of specialists on my staff. The EA and this DR contain sufficient site specific information to implement the proposed action. The comments received do not provide any substantially new information or new analysis, nor do they identify substantial new data gaps that would indicate additional analysis is needed. Finally, the comments do not identify any significant new data which would alter the effects described in the EA or in the RMP EIS. I am confident that the Thin Sheep Forest Health Treatments EA plus the supplemental information contained in this Decision Rationale represents a thorough analysis of impacts to affected habitats and species, in light of the more comprehensive analysis done in the Klamath Falls Resource Area RMP to which the Thin Sheep Forest Health Treatments EA is tiered.

### **Plan Consistency**

Based on the information in the Thin Sheep Forest Health Treatments EA and in the record, I conclude that this action is consistent with the Klamath Falls Resource Area Resource Management Plan. The action will help to move this portion of the landscape towards the desired future conditions considered in development of the RMP. The actions will comply with the *Endangered Species Act*, the *Native American Religious Freedom Act*, cultural resource management laws and regulations, and Executive Order 12898 (Environmental Justice). This decision will not have any adverse effects to energy development, production, supply and/or distribution (per Executive Order 13212).

### **Finding of No Significant Impact**

No significant effects were identified. No effects beyond those anticipated in the KFRA RMP EIS would occur. Refer to the accompanying Finding of No Significant Impact.

## Summary

In consideration of public comments, the consistency with the RMP and the finding that there would not be any significant impacts, this decision allows implementation of activities for the Thin Sheep Timber Sale.

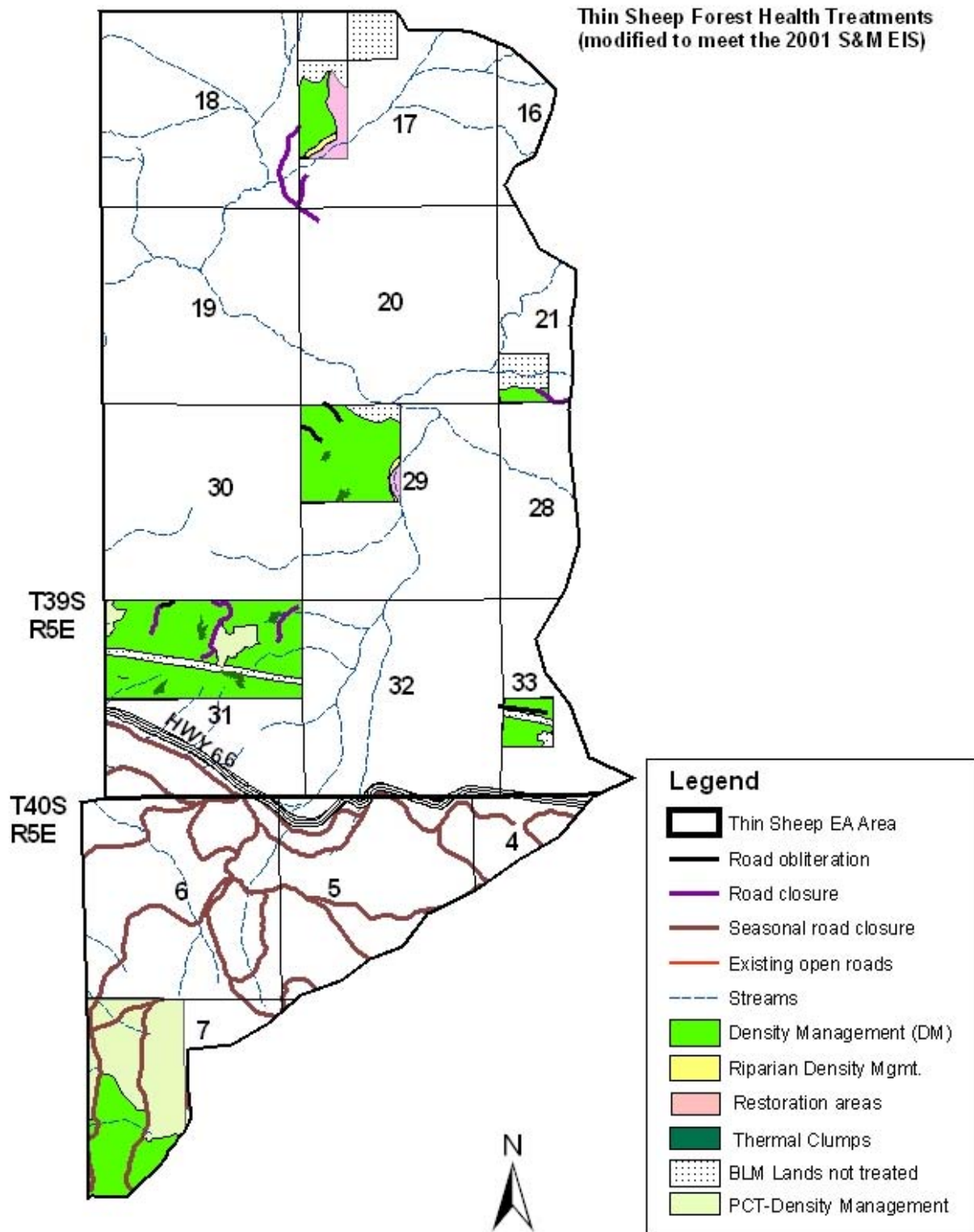
As outlined in 43 CFR § 5003 Administrative Remedies at § 5003.3 (a) and (b), protests may be made within 15 days of the publication date of a notice of sale. Publication of such notice in *The Klamath Falls Herald and News*, Klamath Falls, Oregon constitutes the decision date from which such protests may be filed. Protests shall be filed with the authorized officer and contain a written statement of reasons for protesting the decision.

43 CFR 5003.3 subsection (b) states: "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail or facsimile protests. Only written and signed hard copies of protests that are delivered to the Klamath Falls Resource Area office will be accepted.

(Signed) Barbara Machado  
Barbara Machado, Acting Manager  
Klamath Falls Resource Area  
Lakeview District, Bureau of Land Management

10/18/06  
Date

**Figure 2 – Thin Sheep Project Map**



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

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